

Claims 13-43 are now presented for examination; claims 13-37 were allowed in the parent application. Claims 38-43 have been added to provide the applicant with a more complete scope of protection for his invention. Claims 13, 19, 25, 31 and 37 are independent. Favorable review is respectfully requested.

New dependent claims 38 and 40 recite the feature that the single lens has a lens surface comprising an aspherical surface in the main scanning direction. Similarly, claims 42 and 43 recite at least two lens surfaces of at least two lenses having aspherical surfaces in the main scanning direction. These features are supported in the specification at (for example) page 25, lines 5-7, with reference to Figure 4A (for a single lens) and page 51, lines 7-14, with reference to Figure 24A (for two lenses).

New dependent claims 39 and 41 recite the feature that the single lens has a lens surface having an inflection point in the main scanning direction. These features are supported in the specification at (for example) page 29, lines 6-9, with reference to Figure 6 (solid lines).

According to the present invention, the curvature of both lens surfaces of the scanning lens is continuously varied from the on-axis toward the off-axis. This solves a problem of pitch irregularity due to bending of the scanning line in a multi-beam scanning optical apparatus (see specification, page 7, lines 8-20).

The reference listed in the Information Disclosure Statement submitted herewith (Suzuki, JP 62-139520) is understood to disclose an optical scanning device in which the curvature of at least one surface of the two surfaces of a scanning lens is continuously varied in the sub-scanning direction from the on-axis to the off-axis. However, the system described in the reference does not relate to a multi-beam scanning optical apparatus employing a plurality of light sources which may be independently modulated, as in the present invention. Accordingly, the listed reference does not offer any teaching regarding the above-noted problem solved by the present invention, so that the present invention is believed to be patentable over that reference.

INFORMATION DISCLOSURE STATEMENT

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the document listed on the enclosed Form PTO-1449. A copy of the listed document, and of an English translation thereof, is also enclosed.

It is respectfully requested that the listed information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.



In view of the foregoing amendments and remarks, Applicant respectfully requests favorable consideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 758-2400 or by facsimile at (212) 758-2982. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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